

<110> Yu et al.

## <120> Neutrokin-alpha and Neutrokin-alpha Splice Variants

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ccaaccttca aagttcaagt agtcat atg gat gac tcc aca gaa agg gag cag 173  
Met Asp Asp Ser Thr Glu Arg Glu Gln  
1 5

tca cgc ctt act tct tgc ctt aag aaa aga gaa gaa atg aaa ctg aag 221  
Ser Arg Leu Thr Ser Cys Leu Lys Lys Arg Glu Glu Met Lys Leu Lys  
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gag tgt gtt tcc atc ctc cca cgg aag gaa agc ccc tct gtc cga tcc 269  
Glu Cys Val Ser Ile Leu Pro Arg Lys Glu Ser Pro Ser Val Arg Ser  
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tcc aaa gac gga aag ctg ctg gct gda acc ttg ctg ctg gca ctg ctg 317  
Ser Lys Asp Gly Lys Leu Leu Ala Ala Thr Leu Leu Leu Ala Leu Leu  
45 50 55

tct tgc tgc ctc acg gtg gtg tct ttc tac cag gtg gcc gcc ctg caa 365  
Ser Cys Cys Leu Thr Val Val Ser Phe Tyr Gln Val Ala Ala Leu Gln  
60 65 70

ggg gac ctg gcc agc ctc cgg gca gag ctg cag ggc cac cac gcg gag 413  
Gly Asp Leu Ala Ser Leu Arg Ala Glu Leu Gln Gly His His Ala Glu  
75 80 85

aag ctg cca gca gga gca gga gcc ccc aag gcc ggc ctg gag gaa gct 461  
Lys Leu Pro Ala Gly Ala Gly Ala Pro Lys Ala Gly Leu Glu Glu Ala  
90 95 100 105

cca gct gtc acc gcg gga ctg aaa atc ttt gaa cca cca gct cca gga 509  
Pro Ala Val Thr Ala Gly Leu Lys Ile Phe Glu Pro Pro Ala Pro Gly  
110 115 120

gaa ggc aac tcc agt cag aac agc aga aat aag cgt gcc gtt cag ggt 557  
Glu Gly Asn Ser Ser Gln Asn Ser Arg Asn Lys Arg Ala Val Gln Gly  
125 130 135

cca gaa gaa aca gtc act caa gac tgc ttg caa ctg att gca gac agt 605  
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Arg Lys Glu Ser Pro Ser Val Arg Ser Ser Lys Asp Gly Lys Leu Leu
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Ala Ala Thr Leu Leu Leu Ala Leu Leu Ser Cys Cys Leu Thr Val Val
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Ser Phe Tyr Gln Val Ala Ala Leu Gln Gly Asp Leu Ala Ser Leu Arg
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Ala Glu Leu Gln Gly His His Ala Glu Lys Leu Pro Ala Gly Ala Gly  
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Ala Pro Lys Ala Gly Leu Glu Glu Ala Pro Ala Val Thr Ala Gly Leu  
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Lys Ile Phe Glu Pro Pro Ala Pro Gly Glu Gly Asn Ser Ser Gln Asn  
115 120 125

Ser Arg Asn Lys Arg Ala Val Gln Gly Pro Glu Glu Thr Val Thr Gln  
130 135 140

Asp Cys Leu Gln Leu Ile Ala Asp Ser Glu Thr Pro Thr Ile Gln Lys  
145 150 155 160

Gly Ser Tyr Thr Phe Val Pro Trp Leu Leu Ser Phe Lys Arg Gly Ser  
165 170 175

Ala Leu Glu Glu Lys Glu Asn Lys Ile Leu Val Lys Glu Thr Gly Tyr  
180 185 190

Phe Phe Ile Tyr Gly Gln Val Leu Tyr Thr Asp Lys Thr Tyr Ala Met  
195 200 205

Gly His Leu Ile Gln Arg Lys Lys Val His Val Phe Gly Asp Glu Leu  
210 215 220

Ser Leu Val Thr Leu Phe Arg Cys Ile Gln Asn Met Pro Glu Thr Leu  
225 230 235 240

Pro Asn Asn Ser Cys Tyr Ser Ala Gly Ile Ala Lys Leu Glu Glu Gly  
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Cys Leu Leu His Phe Gly Val Ile Gly Pro Gln Arg Glu Glu Phe Pro  
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Arg Asp Leu Ser Leu Ile Ser Pro Leu Ala Gln Ala Val Arg Ser Ser

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Leu Ala Asn Gly Val Glu	Leu Arg Asp Asn Gln Leu Val Val Pro Ser		
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Glu Gly Leu Tyr Leu Ile	Tyr Ser Gln Val Leu Phe Lys Gly Gln Gly		
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Cys Pro Ser Thr His Val	Leu Leu Thr His Thr Ile Ser Arg Ile Ala		
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Val Ser Tyr Gln Thr Lys	Val Asn Leu Leu Ser Ala Ile Lys Ser Pro		
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Cys Gln Arg Glu Thr Pro	Glu Gly Ala Glu Ala Lys Pro Trp Tyr Glu		
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Pro Ile Tyr Leu Gly Gly	Val Phe Gln Leu Glu Lys Gly Asp Arg Leu		
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Ala His Leu Ile Gly Asp	Pro Ser Lys Gln Asn Ser Leu Leu Trp Arg		
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Ala Asn Thr Asp Arg Ala	Phe Leu Gln Asp Gly Phe Ser Leu Ser Asn		
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Ala	Gln	Gln	Gly	Leu	Gly	Phe	Gln	Lys	Leu	Pro	Glu	Glu	Glu	Pro	Glu		
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Thr	Asp	Leu	Ser	Pro	Gly	Leu	Pro	Ala	Ala	His	Leu	Ile	Gly	Ala	Pro		
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Leu	Lys	Gly	Gln	Gly	Leu	Gly	Trp	Glu	Thr	Thr	Lys	Glu	Gln	Ala	Phe		
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Arg Arg Gln Gly Tyr Gly Pro Leu Trp Tyr Thr Ser Val Gly Phe Gly  
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 35 40 45

Pro Pro Pro Pro Pro Leu Pro Pro Pro Pro Pro Pro Pro Leu Pro  
 50 55 60

Pro Leu Pro Leu Pro Pro Leu Lys Lys Arg Gly Asn His Ser Thr Gly  
 65 70 75 80

Leu Cys Leu Leu Val Met Phe Phe Met Val Leu Val Ala Leu Val Gly  
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Leu Gly Leu Gly Met Phe Gln Leu Phe His Leu Gln Lys Glu Leu Ala  
 100 105 110

Glu Leu Arg Glu Ser Thr Ser Gln Met His Thr Ala Ser Ser Leu Glu  
 115 120 125

Lys Gln Ile Gly His Pro Ser Pro Pro Pro Glu Lys Lys Glu Leu Arg  
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Lys Val Ala His Leu Thr Gly Lys Ser Asn Ser Arg Ser Met Pro Leu  
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aggaagaagcc	ctctntccga	tctctcaaa	acggaagct	gctggctgca	accttgntgn	300
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 Lys Lys Arg Glu Glu Met Lys Leu Lys Glu Cys Val Ser Ile Leu Pro  
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 cgg aag gaa agc ccc tct gtc cga tcc tcc aaa gac gga aag ctg ctg 144  
 Arg Lys Glu Ser Pro Ser Val Arg Ser Ser Lys Asp Gly Lys Leu Leu  
 35 40 45  
 gct gca acc ttg ctg ctg gca ctg ctg tct tgc tgc ctc acg gtg gtg 192  
 Ala Ala Thr Leu Leu Leu Ala Leu Leu Ser Cys Cys Leu Thr Val Val  
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 tct ttc tac cag gtg gcc gcc ctg caa ggg gac ctg gcc agc ctc cgg 240  
 Ser Phe Tyr Gln Val Ala Ala Leu Gln Gly Asp Leu Ala Ser Leu Arg  
 65 70 75 80  
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Ser Asp Val Thr Glu Val Met Trp Gln Pro Ala Leu Arg Arg Gly Arg

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25

30

Gly Leu Gln Ala Gln Gly Tyr Gly Val Arg Ile Gln Asp Ala Gly Val  
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Tyr Leu Leu Tyr Ser Gln Val Leu Phe Gln Asp Val Thr Phe Thr Met  
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Gly Gln Val Val Ser Arg Glu Gly Gln Gly Arg Gln Glu Thr Leu Phe  
65 70 75 80

Arg Cys Ile Arg Ser Met Pro Ser His Pro Asp Arg Ala Tyr Asn Ser  
85 90 95

Cys Tyr Ser Ala Gly Val Phe His Leu His Gln Gly Asp Ile Leu Ser  
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Val Ile Ile Pro Arg Ala Arg Ala Lys Leu Asn Leu Ser Pro His Gly  
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Thr Phe Leu Gly Phe Val Lys Leu  
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&lt;210&gt; 22

&lt;211&gt; 1040

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (1) .. (468)

&lt;400&gt; 22

cgc gtg gta gac ctc tca gct cct cct gca cca tgc ctg cct gga tgc 48  
Arg Val Val Asp Leu Ser Ala Pro Pro Ala Pro Cys Leu Pro Gly Cys  
1 5 10 15

cgc cat tct caa cat gat gat aat gga atg aac ctc aga aac aga act 96  
Arg His Ser Gln His Asp Asp Asn Gly Met Asn Leu Arg Asn Arg Thr  
20 25 30

tac aca ttt gtt cca tgg ctt ctc agc ttt aaa aga gga aat gcc ttg 144  
Tyr Thr Phe Val Pro Trp Leu Leu Ser Phe Lys Arg Gly Asn Ala Leu

000030-00000000

<400> 23  
Arg Val Val Asp Leu Ser Ala Pro Pro Ala Pro Cys Leu Pro Gly Cys

1 5 20 10 15  
 Arg His Ser Gln His Asp Asp Asn Gly Met Asn Leu Arg Asn Arg Thr  
 20 25 30  
 Tyr Thr Phe Val Pro Trp Leu Leu Ser Phe Lys Arg Gly Asn Ala Leu  
 35 40 45  
 Glu Glu Lys Glu Asn Lys Ile Val Val Arg Gln Thr Gly Tyr Phe Phe  
 50 55 60  
 Ile Tyr Ser Gln Val Leu Tyr Thr Asp Pro Ile Phe Ala Met Gly His  
 65 70 75 80  
 Val Ile Gln Arg Lys Lys Val His Val Phe Gly Asp Glu Leu Ser Leu  
 85 90 95  
 Val Thr Leu Phe Arg Cys Ile Gln Asn Met Pro Lys Thr Leu Pro Asn  
 100 105 110  
 Asn Ser Cys Tyr Ser Ala Gly Ile Ala Arg Leu Glu Glu Gly Asp Glu  
 115 120 125  
 Ile Gln Leu Ala Ile Pro Arg Glu Asn Ala Gln Ile Ser Arg Asn Gly  
 130 135 140  
 Asp Asp Thr Phe Phe Gly Ala Leu Lys Leu Leu  
 145 150 155

<210> 24  
 <211> 26  
 <212> DNA  
 <213> Homo sapiens

<400> 24  
 ccaccagctc caggagaagg caactc 26

<210> 25  
 <211> 19  
 <212> DNA  
 <213> Homo sapiens

<400> 25  
 accgcgggac tgaaaatct 19

<210> 26  
 <211> 23  
 <212> DNA  
 <213> Homo sapiens

<400> 26  
 cacgcttatt tctgctgttc tga 23

<210> 27  
 <211> 657  
 <212> DNA  
 <213> Homo sapiens

<400> 27  
 taccaggtgg cggccgtgca aggggacctg gccagcctcc ggcagagct gcagggccac 60  
 cacgcggaga agctgccagc aagagcaaga gcccacaagg cgggtctggg ggaagctcca 120  
 gctgtcaccg caggactgaa aatctttgaa ccaccagctc caggagaagg caactccagt 180  
 cagagcagca gaaataagcg tgctattcag ggtgcagaag aaacagtcac tcaagactgc 240  
 ttgcaactga ttgcagacag tgaaacacca actatacaaa aaggatctta cacatttggt 300

000090'00200500

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<210> 28
<211> 219
<212> PRT
<213> Homo sapiens
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Tyr Gln Val Ala Ala Val Gln Gly Asp Leu Ala Ser Leu Arg Ala Glu  
1 5 10 15

Leu Gln Gly His His Ala Glu ~~Lys~~ Leu Pro Ala Arg Ala Arg Ala Pro  
20 25 30

Lys Ala Gly Leu Gly Glu Ala ~~Pro~~ Ala Val Thr Ala Gly Leu Lys Ile  
35 40 45

Phe Glu Pro Pro Ala Pro Gly ~~Glu Gly~~ Asn Ser Ser Gln Ser Ser Arg  
50 55 60

Asn Lys Arg Ala Ile Gln Gly Ala Glu Glu Thr Val Ile Gln Asp Cys  
65 70 75 80

Leu Gln Leu Ile Ala Asp Ser Glu Thr / Pro Thr Ile Gln Lys Gly Ser  
85 90 95

Tyr Thr Phe Val Pro Trp Leu Leu Ser Phe Lys Arg Gly Ser Ala Leu  
100 105 110

Glu Glu Lys Glu Asn Lys Ile Leu Val Lys Glu Thr Gly Tyr Phe Phe  
115 120 125

Ile Tyr Gly Gln Val Leu Tyr Thr Asp Lys Thr Tyr Ala Met Gly His  
130 135 140

Leu Ile Gln Arg Lys Lys Val His Val Phe Gly Asp Glu Leu Ser Leu  
145 150 155 160

Val Thr Leu Phe Arg Cys Ile Gln Asn Met Pro Glu Thr Leu Pro Asn  
165 170 175

Asn Ser Cys Tyr Ser Ala Gly Ile Ala Lys Leu Glu Glu Gly Asp Glu  
180 185 190

Leu Gln Leu Ala Ile Pro Arg Glu Asn Ala Gln Ile Ser Leu Asp Gly  
195 200 205

Asp Val Thr Phe Phe Gly Ala Leu Lys Leu Leu  
210 215

```
<210> 29
<211> 657
<212> DNA
```

<400> 29

<210> 30

<212> PRT

<213> Homo sapiens

<400> 30

Tyr	Gln	Val	Ala	Ala	Val	Gln	Gly	Asp	Leu	Ala	Ser	Leu	Arg	Ala	Glu
1				5				10						15	
Leu	Gln	Ser	His	His	Ala	Glu	Lys	Leu	Pro	Ala	Arg	Ala	Arg	Ala	Pro
			20					25					30		
Lys	Ala	Gly	Leu	Gly	Glu	Ala	Pro	Ala	Val	Thr	Ala	Gly	Leu	Lys	Ile
		35					40					45			
Phe	Glu	Pro	Pro	Ala	Pro	Gly	Glu	Gly	Asn	Ser	Ser	Gln	Ser	Ser	Arg
	50					55					60				
Asn	Lys	Arg	Ala	Ile	Gln	Gly	Ala	Glu	Glu	Thr	Val	Ile	Gln	Asp	Cys
65					70					75				80	
Leu	Gln	Leu	Ile	Ala	Asp	Ser	Glu	Thr	Pro	Thr	Ile	Gln	Lys	Gly	Ser
			85						90					95	
Tyr	Thr	Phe	Val	Pro	Trp	Leu	Leu	Ser	Phe	Lys	Arg	Gly	Ser	Ala	Leu
			100					105					110		
Glu	Glu	Lys	Glu	Asn	Lys	Ile	Leu	Val	Lys	Glu	Thr	Gly	Tyr	Phe	Phe
		115					120					125			
Ile	Tyr	Gly	Gln	Val	Leu	Tyr	Thr	Asp	Lys	Thr	Tyr	Ala	Met	Gly	His
	130					135					140				
Leu	Ile	Gln	Arg	Lys	Lys	Val	His	Val	Phe	Gly	Asp	Glu	Leu	Ser	Leu
145					150					155					160
Val	Thr	Leu	Phe	Arg	Cys	Ile	Gln	Asn	Met	Pro	Glu	Thr	Leu	Pro	Asn
			165						170					175	
Asn	Ser	Cys	Tyr	Ser	Ala	Gly	Ile	Ala	Lys	Leu	Glu	Glu	Gly	Asp	Glu
			180					185					190		
Leu	Gln	Leu	Ala	Ile	Pro	Arg	Glu	Asn	Ala	Gln	Ile	Ser	Leu	Asp	Gly
		195					200					205			

```
<210> 31
<211> 38
<212> DNA
<213> Homo sapiens
```

38

```
<210> 32
<211> 49
<212> DNA
<213> Homo sapiens
```

49

```
<210> 33
<211> 21
<212> DNA
<213> Homo sapiens
```

21

```
<210> 34
<211> 19
<212> DNA
<213> Homo sapiens
```

19

```
<210> 35
<211> 22
<212> DNA
<213> Homo sapiens
```

```
<220>  
<221> misc_feature  
<222> (7)  
<223> n equals deoxyinosine
```

```
<220>
<221> misc_feature
<222> (12)
<223> n equals deoxyinosine
```

```
<220>  
<221> misc_feature  
<222> (16)  
<223> n equals deoxyinosine
```

22

```
<210> 36
<211> 22
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> (3)
<223> n equals deoxyinosine
```

```
<220> .
<221> misc_feature
<222> (14)
<223> n equals deoxyinosine
```

```
<220>
<221> misc_feature
<222> (16)..(17)
<223> n equals deoxyinosine
```

<400> 36  
gtnacagcag tttnanngca cc

22

```
<210> 37
<211> 866
<212> DNA
<213> Mus musculus
```

<400> 37							
atgggatgagt	ctgcaaagac	cctgccacca	ccgtgcctct	gtttttgctc	cgagaaagga		60
gaagatatga	aagtgggata	tgatcccatc	actccgcaga	aggaggaggg	tgcttggttt		120
gggatctgca	gggatggaag	gctgctggct	gctaccctcc	tgctggccct	gttgtccagc		180
agtttcacag	cgatgtcctt	gtaccagttg	gctgccttgc	aagcagacct	gatgaacctg		240
cgcatggagc	tgcatagcta	cagaggttca	gcaacaccag	ccgcgcggcg	tgctccagag		300
ttgaccgctg	gagtcaaact	cctgacaccg	gcagctcctc	gacccacaaa	ctccagccgc		360
ggccacagga	acagacgcgc	cttcagggga	ccagaggaaa	cagaacaaga	tgtagacctc		420
tcagctcctc	ctgcaccatg	cctgcctgga	tgccgccatt	ctcaacatga	tgataatgga		480
atgaacctca	gaaacatcat	tcaagactgt	ctgcagctga	ttgcagacag	cgacacgccg		540
gccttggagg	agaaagagaa	caaaatatgt	gtgaggcaaa	caggctatct	cttcattctac		600
agccagggttc	tatacacgga	ccccatcttt	gctatgggtc	atgtcatcca	gaggaagaaa		660
gtacacgtct	ttggggagca	gctgagcctg	gtgaccctgt	tccgatgtat	tcagaatatg		720
cccaaaacac	tgcccaacaa	ttcctgctac	tcggctggca	tccgcagggt	ggaagaagga		780
gatgatattc	agcttgcaat	tctcggggag	aatgcacaga	tttcacgcaa	cggagacgac		840
accttctttg	gtgccctaaa	actgct					866

```
<210> 38
<211> 177
<212> PRT
<213> Mus musculus
```

<400> 38  
Met Asp Ser Ala Lys Thr Cys Cys Cys Ser Lys Gly Asp Met Lys Val  
1 5 10 15



Gly	Tyr	Asp	Thr	Lys	Gly	Ala	Trp	Gly	Cys	Arg	Asp	Gly	Arg	Ala	Ala		
				20					25					30			
Thr	Ala	Ser	Ser	Ser	Thr	Ala	Met	Ser	Tyr	Ala	Ala	Ala	Asp	Met	Asn		
				35					40					45			
Arg	Met	Ser	Tyr	Arg	Gly	Ser	Ala	Thr	Ala	Ala	Ala	Gly	Ala	Thr	Ala		
				50					55					60			
Gly	Val	Lys	Thr	Ala	Ala	Arg	His	Asn	Ser	Ser	Arg	Gly	His	Arg	Asn		
				65					70					75			
Arg	Arg	Ala	Gly	Thr	Asp	Val	Asp	Ser	Ala	Ala	Cys	Gly	Cys	Arg	His		
				85					90					95			
Ser	His	Asp	Asp	Asn	Gly	Met	Asn	Arg	Asn	Asp	Cys	Ala	Asp	Ser	Asp		
				100					105					110			
Thr	Ala	Lys	Asn	Lys	Val	Val	Arg	Thr	Gly	Tyr	Tyr	Ser	Val	Tyr	Thr		
				115					120					125			
Asp	Ala	Met	Gly	His	Val	Arg	Lys	Lys	Val	His	Val	Gly	Asp	Ser	Val		
				130					135					140			
Thr	Arg	Cys	Asn	Met	Lys	Thr	Asn	Asn	Ser	Cys	Tyr	Ser	Ala	Gly	Ala		
				145					150					155			
Arg	Gly	Asp	Ala	Arg	Asn	Ala	Ser	Arg	Asn	Gly	Asp	Asp	Thr	Gly	Ala		
				165					170					175			
Lys																	